ABSTRACT OF THE DISCLOSURE

A method for adapting a computer-to-computer communication

5   protocol, and especially TCP/IP, or any protocol implemented

in a general purpose off-the-shelf network like Ethernet, for

use in providing communication needed in an industrial

control system, and especially an industrial control system

using a programmable logic controller (PLC), where there is

10   frequent communication between the PLC and control or

monitoring elements, the method aimed at allowing the PLC to

perform scanning of its ladder logic at a rate adequate for

effective industrial control. The method includes making

permanent-type TCP connections between the PLC and a control

15   element or a monitoring element, use of a protocol for

communication with a control or monitoring element in which

both a read register and a write register instruction is

included in a single communication transaction, such as a

MODBUS command, and tuning communication between the PLC and

20   a control element or a monitoring element.